MONTHLY BULLETIN

OF

# THE OBSERVATORY

## AMERICAN UNIVERSITY OF BEIRUT

FORMERLY

## SYRIAN PROTESTANT COLLEGE

BEIRUT, SYRIA

LAT. 33° 54′ 22″ N.

LONG. E. FROM GREENWICH 35° 28′ 10″

NOVEMBER 1922

J. A. BROWN, DIRECTOR

LIBRARY
MAR 26 1923
Weather Bureau

PRINTED AT THE UNIVERSITY PRESS

# DECEMBER 1922

## METEOROLOGICAL REGISTER

| Date | Barometer reduced to 0°C. Sea level and 45° Latitude | | | | Thermometer Cent. (Corrected) | | | Bright Sunshine hrs. | Rain m.m. |
|---|---|---|---|---|---|---|---|---|---|
| | 8:30 | 2:30 | 8:30 | mean | Max. | Min. | Min. on grass | | |
| 1 | 761.9 | 761.8 | 761.5 | 761.7 | 17.3 | 10.7 | 9.2 | | 14.73 |
| 2 | 0.8 | 59.1 | 59.4 | 59.8 | 14.9 | 10.1 | 8.3 | | 28.70 |
| 3 | 4.3 | 65.0 | 65.3 | 64.9 | 14.9 | 9.0 | 7.6 | | 13.33 |
| 4 | 4.6 | 2.7 | 5.2 | 4.2 | 17.7 | 10.6 | 8.5 | | |
| 5 | 1.5 | 0.6 | 1.1 | 1.1 | 19.1 | 14.4 | 11.1 | | |
| 6 | 59.7 | 58.8 | 57.2 | 58.6 | 21.1 | 13.8 | 9.4 | | |
| 7 | 5.5 | 6.2 | 9.0 | 6.9 | 19.9 | 14.9 | 11.7 | | 2.29 |
| 8 | 61.7 | 61.5 | 61.8 | 61.7 | 19.4 | 13.8 | 10.2 | | |
| 9 | 1.3 | 0.9 | 3.8 | 2.0 | 18.3 | 13.8 | 10.5 | | 5.33 |
| 10 | 6.2 | 5.4 | 5.8 | 5.8 | 18.9 | 13.3 | 9.4 | | 4.32 |
| 11 | 4.6 | 3.6 | 4.4 | 4.2 | 18.4 | 13.0 | 10.2 | | |
| 12 | 3.1 | 0.5 | 0.0 | 1.2 | 18.6 | 12.9 | 9.9 | | |
| 13 | 59.2 | 57.1 | 57.4 | 57.9 | 18.3 | 12.1 | 8.6 | | 27.80 |
| 14 | 6.2 | 6.4 | 60.0 | 7.5 | 15.9 | 10.8 | 8.3 | | 27.17 |
| 15 | 63.7 | 64.0 | 4.9 | 64.2 | 15.9 | 10.3 | 7.2 | | 2.29 |
| 16 | 5.0 | 3.2 | 3.3 | 3.8 | 17.4 | 12.2 | 7.8 | | |
| 17 | 3.8 | 4.1 | 5.4 | 4.4 | 15.8 | 12.2 | 9.4 | | 4.95 |
| 18 | 6.6 | 6.4 | 7.3 | 6.8 | 17.2 | 11.1 | 7.8 | | |
| 19 | 7.3 | 6.8 | 7.4 | 7.2 | 15.9 | 12.7 | 8.8 | | 4.83 |
| 20 | 9.1 | 8.6 | 8.4 | 8.7 | 17.1 | 11.5 | 8.4 | | |
| 21 | 7.2 | 5.2 | 6.5 | 6.3 | 18.8 | 13.3 | 9.4 | | |
| 22 | 7.9 | 6.9 | 7.5 | 7.4 | 17.4 | 12.2 | 9.3 | | 1.90 |
| 23 | 6.3 | 3.6 | 3.2 | 4.3 | 17.2 | 12.2 | 8.9 | | |
| 24 | 3.5 | 3.8 | 6.0 | 4.4 | 16.7 | 13.8 | 10.3 | | 0.25 |
| 25 | 6.8 | 6.3 | 6.8 | 6.6 | 17.2 | 11.2 | 8.4 | | 2.79 |
| 26 | 8.0 | 5.0 | 7.7 | 6.9 | 17.3 | 12.7 | 9.1 | | |
| 27 | 7.7 | 6.8 | 6.7 | 7.1 | 17.2 | 11.8 | 9.0 | | |
| 28 | 6.1 | 4.2 | 3.8 | 4.7 | 18.2 | 12.8 | 7.7 | | |
| 29 | 1.3 | 59.1 | 57.9 | 59.4 | 18.5 | 13.9 | 8.9 | | |
| 30 | 57.6 | 7.0 | 6.4 | 7.0 | 18.8 | 15.1 | 10.5 | | 12.44 |
| 31 | 7.0 | 8.9 | 61.8 | 9.2 | 16.5 | 12.2 | 10.4 | | 20.57 |
| | 763.4 | 762.6 | 763.3 | 763.1 | 17.00 | 12.40 | 9.20 | | 173.7 |

BAROMETER

| | | |
|---|---|---|
| Maximum | 769.1 | on 20th |
| Minimum | 755.5 | on 7th |

THERMOMETER

| | | |
|---|---|---|
| Maximum | 21.1 | on 6th |
| Minimum | 9.0 | on 3rd |
| Minimum on grass | 7.2 | on 15th |

RAINFALL

Maximum 28.70 mm. on 2nd

Number of days with rain 16 thunderstorms 0 fog 0 gale 0

# DECEMBER 1922

## METEOROLOGICAL REGISTER

| Date | Dry Bulb Cent. (Corrected) | | | | Wet Bulb Cent. (Corrected) | | | Elasticity of Vapour mm. | | | | Relative Moisture per cent. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 8:30 | 2:30 | 8:30 | mean | 8:30 | 2:30 | 8:30 | 8:30 | 2:30 | 8:30 | mean | 8:30 | 2:30 | 8:30 | mean |
| 1 | 14.9 | 16.6 | 13.9 | 15.1 | 12.2 | 13.2 | 12.9 | 9.0 | 9.3 | 10.6 | 9.6 | 71 | 67 | 89 | 76 |
| 2 | 11.2 | 14.2 | 11.8 | 12.4 | 10.7 | 12.1 | 11.0 | 9.3 | 9.2 | 9.3 | 9.3 | 94 | 77 | 90 | 87 |
| 3 | 11.1 | 14.5 | 12.1 | 12.6 | 10.1 | 11.8 | 10.1 | 8.6 | 8.8 | 8.0 | 8.5 | 88 | 71 | 76 | 78 |
| 4 | 15.0 | 16.7 | 15.0 | 15.6 | 11.5 | 12.7 | 10.7 | 8.2 | 8.7 | 7.4 | 8.1 | 65 | 61 | 58 | 61 |
| 5 | 17.8 | 18.6 | 14.9 | 17.1 | 12.1 | 12.8 | 11.5 | 7.7 | 8.0 | 8.3 | 8.0 | 50 | 50 | 66 | 55 |
| 6 | 17.2 | 20.5 | 17.8 | 18.5 | 12.9 | 14.2 | 12.1 | 8.8 | 9.4 | 7.6 | 8.6 | 61 | 58 | 50 | 56 |
| 7 | 18.1 | 19.5 | 17.3 | 18.3 | 14.4 | 14.9 | 13.0 | 10.0 | 10.0 | 8.8 | 9.6 | 65 | 60 | 61 | 62 |
| 8 | 16.3 | 18.8 | 16.3 | 17.1 | 12.8 | 14.9 | 13.3 | 9.0 | 10.3 | 9.6 | 9.6 | 65 | 66 | 70 | 67 |
| 9 | 15.4 | 17.8 | 15.8 | 16.3 | 13.5 | 14.1 | 12.9 | 10.4 | 9.8 | 9.5 | 9.9 | 80 | 65 | 71 | 72 |
| 10 | 15.7 | 18.6 | 14.5 | 16.3 | 12.1 | 14.3 | 11.2 | 8.5 | 9.7 | 8.1 | 8.8 | 64 | 61 | 66 | 64 |
| 11 | 15.9 | 17.9 | 14.6 | 16.1 | 11.3 | 13.1 | 11.0 | 7.6 | 8.7 | 7.9 | 8.1 | 57 | 56 | 64 | 59 |
| 12 | 15.4 | 17.8 | 18.3 | 17.2 | 11.6 | 13.0 | 11.6 | 8.2 | 8.5 | 7.1 | 7.9 | 64 | 57 | 45 | 55 |
| 13 | 12.7 | 15.2 | 12.1 | 13.3 | 11.6 | 11.1 | 11.0 | 9 5 | 7.7 | 9.1 | 8.8 | 87 | 60 | 87 | 78 |
| 14 | 14.4 | 15.7 | 12.7 | 14.3 | 11.8 | 12.2 | 10.8 | 8.8 | 8.6 | 8.6 | 8.7 | 72 | 65 | 79 | 72 |
| 15 | 13.8 | 15.6 | 12.9 | 14.1 | 11.2 | 12.0 | 10.0 | 8.5 | 8.6 | 7.6 | 8.2 | 71 | 64 | 69 | 68 |
| 16 | 12.4 | 17.2 | 13.4 | 14.3 | 9.3 | 10.9 | 9.6 | 7.2 | 6.6 | 7.0 | 6.9 | 66 | 45 | 60 | 57 |
| 17 | 13.6 | 15.0 | 12.2 | 13.6 | 9.3 | 12.9 | 11.1 | 6.8 | 8.8 | 7.6 | 7.7 | 58 | 69 | 58 | 62 |
| 18 | 13.4 | 16.7 | 14.2 | 14.8 | 10.2 | 12.3 | 10.9 | 7.7 | 8.3 | 8.0 | 8.0 | 66 | 59 | 67 | 64 |
| 19 | 13.3 | 13.7 | 12.6 | 13.2 | 12.5 | 12.4 | 15.4 | 10.3 | 10.0 | 7.6 | 9.3 | 92 | 85 | 70 | 82 |
| 20 | 13.9 | 16.7 | 13.3 | 14.3 | 10.4 | 12.3 | 10.1 | 7.5 | 8.3 | 7.5 | 7.8 | 64 | 59 | 66 | 63 |
| 21 | 16.2 | 18.3 | 15.6 | 16.7 | 10.4 | 11.9 | 11.2 | 6.7 | 7.4 | 7.7 | 7.3 | 48 | 47 | 59 | 51 |
| 22 | 13.4 | 16.1 | 13.6 | 14.4 | 12.5 | 13.7 | 10.7 | 10.2 | 10.2 | 8.1 | 9.5 | 89 | 76 | 69 | 78 |
| 23 | 14.7 | 17.0 | 14.0 | 15.2 | 11.5 | 12.9 | 10.8 | 8.4 | 8.8 | 7.9 | 8.4 | 68 | 61 | 66 | 65 |
| 24 | 15.0 | 16.3 | 13.9 | 15.1 | 11.3 | 13.8 | 11.4 | 8.0 | 10.3 | 8.6 | 9.0 | 63 | 75 | 73 | 70 |
| 25 | 13.3 | 16.7 | 14.4 | 14.8 | 12.2 | 11.3 | 11.2 | 9.9 | 7.3 | 8.2 | 8.5 | 86 | 51 | 67 | 68 |
| 26 | 14.4 | 16.9 | 13.9 | 15.1 | 11.8 | 12.3 | 11.5 | 8.8 | 8.2 | 8.7 | 8.6 | 72 | 57 | 74 | 68 |
| 27 | 13.9 | 16.7 | 14.4 | 15.0 | 10.7 | 11.3 | 10.8 | 7.7 | 7.8 | 7.8 | 7.8 | 66 | 55 | 64 | 61 |
| 28 | 15.0 | 18.1 | 14.8 | 16.0 | 10.9 | 12.3 | 10.4 | 7.7 | 7.8 | 7.2 | 7.6 | 60 | 50 | 57 | 56 |
| 29 | 16.2 | 18.2 | 18.1 | 17.5 | 12.6 | 15.1 | 12.1 | 8.9 | 10.8 | 7.5 | 9.1 | 66 | 70 | 48 | 61 |
| 30 | 16.7 | 18.1 | 16.5 | 17.1 | 14.5 | 15.2 | 15.5 | 10.9 | 11.0 | 12.4 | 11.4 | 78 | 72 | 89 | 80 |
| 31 | 14.1 | 13.8 | 12.9 | 13.6 | 12.2 | 10.7 | 10.5 | 9.4 | 7.9 | 8.2 | 8.5 | 78 | 67 | 73 | 73 |
| | 14.6 | 16.9 | 14.8 | 15.4 | 11.7 | 12.8 | 11.5 | 8.6 | 8.8 | 8.3 | 8.6 | 70.1 | 61.5 | 67.8 | 66.5 |

Height of Barometer above sea level : 33.7 meters.

„ „ Thermometers above ground :

Dry and wet 1.55 m. ; Max. 1.75 m. ; Min. 1.70 m.

Height of Rain Guage : above ground 0.56 m. ; above sea level m.

Gravity Correction −0.79mm.

Time of readings according to Standard Time of 30th E. Meridian.

# DECEMBER 1922

## METEOROLOGICAL REGISTER

| Date | Clouds. Clear—0 Overcast—10 | | | | Direction and force of Wind 0—10 | | | Wind per day | Sea | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| | 8:30 | 2:30 | 8:30 | mean | 8:30 | 2:30 | 8:30 | Km. | | |
| 1 | 10n | 10n | 10n | 10 | 5 | 3 | 0 | 539.0 | rough | |
| 2 | 10cu n | 8cu n | 10n | 9.3 | 1ne | 2 | 4 | 271.0 | slight | |
| 3 | 7cu n | 9cu n | 10cu n | 8.7 | 0 | 2 | 0 | 371.9 | ,, | |
| 4 | 10n s | 10n s | 10s n | 10 | 0 | 0 | 0 | 321.9 | calm | |
| 5 | 10cu n | 1 | 0 | 3.7 | 1 | 2nw | 0 | 174.6 | v. slight | |
| 6 | 0 | 5 | 10s n | 5.0 | 1 | 1 | 0 | 48.5 | ,, | |
| 7 | 10n | 10n | 5cu n | 8.3 | 2s | 2 | 2 | 270.9 | ,, | |
| 8 | 2 | 6cu n | 5cu n | 4.3 | 0 | 1 | 0 | 611.8 | ,, | |
| 9 | 10n | 10n | 10n | 10 | 3 | 3 | 0 | 496.7 | slight | |
| 10 | 0 | 0 | 0 | 0 | 1ne | 3 | 0 | 462.4 | v. slight | |
| 11 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 269.3 | ,, | |
| 12 | 6s | 8cu s | 0 | 4.7 | 0 | 0 | 3 | 445.4 | ,, | |
| 13 | 10n | 10n | 10n | 10 | 3 | 5 | 4 | 681.0 | v. rough | |
| 14 | 8cu n | 9n | 10n | 9.0 | 4 | 3 | 1 | 277.3 | ,, | |
| 15 | 6cu n | 8cu n | 2n | 5.3 | 0 | 1 | 0 | 139.9 | slight | |
| 16 | 8cu s | 7cu s | 8n s | 7.7 | 0 | 0 | 0 | 109.4 | calm | |
| 17 | 1 | 9cu n | 10n | 6.7 | 1ne | 1 | 0 | 87.2 | v. slight | |
| 18 | 1 | 0 | 10n | 3.7 | 1 | 0 | 0 | 128.4 | calm | |
| 19 | 10n | 9cu n | 0 | 6.3 | 0 | 0 | 0 | 205.9 | ,, | |
| 20 | 0 | 2 | 0 | 0.7 | 0 | 0 | 0 | 65.5 | ,, | |
| 21 | 8s | 8cu ci | 2n | 6.0 | 2ne | 3ne | 0 | 185.2 | v. slight | |
| 22 | 9cu n | 1 | 0 | 3.3 | 0 | 2 | 0 | 93.2 | calm | |
| 23 | 9cu s | 5 | 6cu n | 6.7 | 0 | 2n | 0 | 167.5 | ,, | |
| 24 | 4cu n | 7 | 5 | 5.3 | 2 | 2 | 0 | 38.5 | v. slight | |
| 25 | 9cu n | 3 | 0 | 4.0 | 0 | 1 | 0 | 360.9 | calm | |
| 26 | 1 | 0 | 0 | 0.3 | 0 | 0 | 0 | 82.0 | ,, | |
| 27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 55.3 | ,, | |
| 28 | 0 | 0 | 1s | 0.3 | 0 | 1n | 0 | 41.2 | v. slight | |
| 29 | 10cu n | 9cu n | 8s | 9.0 | 0 | 0 | 0 | 149.0 | ,, | |
| 30 | 9cu n | 10n | 10n | 9.7 | 0 | 0 | 0 | 166.7 | ,, | |
| 31 | 10n | 10n | 10cu n | 10 | 0 | 3n | 1n | 99.7 | slight | |
| | | | | 5.7 | | | | 239.3 | | |

### Number of Daily Wind Observations

| Time | N | NE | E | SE | S | SW | W | NW | Calm |
|---|---|---|---|---|---|---|---|---|---|
| 8:30 | 0 | 4 | 0 | 0 | 1 | 8 | 0 | 0 | 18 |
| 2:30 | 3 | 1 | 0 | 0 | 0 | 16 | 0 | 1 | 10 |
| 8:30 | 1 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 24 |
| Totals | 4 | 5 | 0 | 0 | 1 | 30 | 0 | 1 | 52 |

N.B.—Cloud numbers without letters are all cu.
Wind ,, ,, ,, ,, ,, sw.